

PATENT COOPERATION TREATY

PCT

NOTIFICATION OF ELECTION
(PCT Rule 61.2)

From the INTERNATIONAL BUREAU

To:

United States Patent and Trademark
Office
(Box PCT)
Washington D.C. 20231
United States of America

in its capacity as elected Office

Date of mailing: 29 May 1995 (29.05.95)	
International application No.: PCT/GB94/02101	Applicant's or agent's file reference: PCT 199 1 IRH
International filing date: 27 September 1994 (27.09.94)	Priority date: 13 October 1993 (13.10.93)
Applicant: CALLAGHAN, Francis, John et al	

1. The designated Office is hereby notified of its election made:

in the demand filed with the International Preliminary Examining Authority on:

28 April 1995 (28.04.95)

in a notice effecting later election filed with the International Bureau on:

2. The election was

was not

made before the expiration of 19 months from the priority date or, where Rule 32 applies, within the time limit under Rule 32.2(b).

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Facsimile No.: (41-22) 740.14.35	Authorized officer: J. Leitao Telephone No.: (41-22) 730.91.11
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PATENT COOPERATION TREATY

PCT

NOTIFICATION CONCERNING
DOCUMENT TRANSMITTED

From the INTERNATIONAL BUREAU

To:

United States Patent and Trademark
Office
(Box PCT)
Washington D.C. 20231
United States of America

in its capacity as elected Office

Date of mailing (day/month/year) 29 November 1995 (29.11.95)	International filing date (day/month/year) 27 September 1994 (27.09.94)
International application No. PCT/GB94/02101	Applicant DATAQUILL LIMITED et al

The International Bureau transmits herewith the following documents and number thereof:

copy of the international preliminary examination report and annexes (Article 36(3)(a))

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland	Authorized officer L. Panakal
Facsimile No.: (41-22) 740.14.35	Telephone No.: (41-22) 730.91.11

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PATENT COOPERATION TREATY

PCT

29 NOV 1995

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference PCT 199 1	FOR FURTHER ACTION	See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)
International application No. PCT/ GB 94/ 02101	International filing date (day/month/year) 27/09/1994	Priority date (day/month/year) 13/10/1993
International Patent Classification (IPC) or national classification and IPC G06K7/10		
Applicant DATAQUILL LIMITED et al.		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 9 sheets, including this cover sheet.

This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consists of a total of 5 sheets.

3. This report contains indications and corresponding pages relating to the following items:

- I Basis of the report
- II Priority
- III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV Lack of unity of invention
- V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI Certain documents cited
- VII Certain defects in the international application
- VIII Certain observations on the international application

Date of submission of the demand 28/04/1995	Date of completion of this report 28.11.95
Name and mailing address of the IPEA/  European Patent Office D-80298 Munich Tel. (+49-89) 2399-0, Tx: 523656 epmu d Fax: (+49-89) 2399-4465	Authorized officer  M. Grob Telephone No. (31/05/1995)

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

Intern. application No.

PCT/GB94/02101

I. Basis of the report

1. This report has been drawn up on the basis of (Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to the report since they do not contain amendments.):

the international application as originally filed.

the description, pages 1-28 _____, as originally filed,
pages _____, filed with the demand,
pages _____, filed with the letter of _____,
pages _____, filed with the letter of _____,

the claims, Nos. _____, as originally filed,
Nos. _____, as amended under Article 19,
Nos. _____, filed with the demand,
Nos. 1-24 _____, filed with the letter of 13.11.95,
Nos. _____, filed with the letter of _____,

the drawings, sheets/fig 1/11-11/11 _____, as originally filed,
sheets/fig _____, filed with the demand,
sheets/fig _____, filed with the letter of _____,
sheets/fig _____, filed with the letter of _____.

2. The amendments have resulted in the cancellation of:

the description, pages _____.
 the claims, Nos. _____.
 the drawings, sheets/fig _____.

3. This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)):

4. Additional observations, if necessary:

IV. Lack of unity of invention

1. In response to the invitation to restrict or pay additional fees the applicant has:

- restricted the claims.
- paid additional fees.
- paid additional fees under protest.
- neither restricted nor paid additional fees.

2. This Authority found that the requirement of unity of invention is not complied with and chose, according to Rule 68.1, not to invite the applicant to restrict or pay additional fees.

3. This Authority considers that the requirement of unity of invention in accordance with Rules 13.1, 13.2 and 13.3 is

complied with.

not complied with for the following reasons:

1. The present application comprises two independent apparatus claims which are not linked by a single general inventive concept (Rule 13.1 PCT). The first group of inventions comprises the independent claim 1 (and its dependent claims) which is directed to a data entry system in which the controller in the hand-held unit is responsive to a command to cause down-loading of information from a remote processing centre for updating information stored for selectable items in the hand-held unit. The second group of inventions comprises the independent claim 3 (and its dependent claims) which is directed to a data entry system comprising a hand-held unit which has a telecommunications line interface integral to said hand-held unit and directly connects said unit to the telecommunications network.

1.1 Although the common link between these two groups corresponds to the features set out on lines 1-13 of claim 3 (essentially the features of the originally filed claim 1), this link is not new in view of the data entry

system in D1, D4 or D7 (see section V of this report). For example, the hand-held unit 10, the reading sensor 14, the display screen 20, and the telecommunications interface 116 in claim 3 can be read onto the hand-held device 1, the bar code reader 7, the display 5 and the audio optical coupling arrangement 8,9 in D1. Furthermore, in D1 (cf page 5, line 25) there is a microprocessor which corresponds to the controller in claim 3. Moreover, clearly the hand-held unit in D1 must comprise a memory for storing the items chosen by the user in addition to the memory chip on the card.

1.2 Hence, there appears to be no "special technical features" in the sense of Rule 13.2 PCT which might justify a technical relationship between the two groups and therefore the requirement of Rule 13.1 PCT is not met.

4. Consequently, the following parts of the international application were the subject of international preliminary examination in establishing this report:

all parts.

the parts relating to claims Nos. _____.

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step and industrial applicability; citations and explanations supporting such statement

1. STATEMENT

Novelty (N) Claims 1-24 _____ YES
Claims _____ NO

Inventive Step (IS) Claims 1-24 _____ YES
Claims _____ NO

2. CITATIONS AND EXPLANATIONS

1. The following documents are cited in this report:

D1 = WO-A-9 100 574

D4 = US-A-4 916 441

D7 = WO-A-8 707 106

2. D1 discloses a data entry system comprising a hand-held unit 1 (cf Fig 1A) which comprises a keyboard 4, a display 5, an infrared transceiver 6 for communicating with the unit 11, an optical bar code reader 7 and an audio coupling arrangements 8,9 for interfacing with a telephone (cf page 5, lines 24-33). A card 2 comprising a memory chip can be inserted into the hand-held device and includes information concerning various items (fight times etc.) which the user may select by scanning the bar code printed on a document or brochure (cf page 2, lines 18-19). Once the choice of items has been made, the information (which is also displayed on the display (cf page 5, lines 31-33)) is sent via the audio coupling arrangement 8,9 and the telephone to a processing cen-

tre. The processing centre processes the items and sends a confirmation or suggests an alternative (cf page 2, lines 19-26).

3. D7 also discloses a data entry system comprising a hand-held device 20 (cf Figs 1 and 4) and a base unit 76 (cf Figs 5 and 7). The hand-held unit comprises a bar code reader 52 which consists of a CCD (cf last paragraph on page 11), a RF modem 66 for communicating with the base unit 76, rechargeable batteries 75, a keypad 56, a display 54, status lights 58 as well as a control processor and memory 64. The base unit 76 comprises a RF modem 79 for bidirectional communication with the hand-held device, a charging circuit 78 for recharging the batteries in the device 20, and a DOV modem 77 for communicating over a telephone line with a central computer system.
4. D4 discloses a data entry system comprising a hand-held pocket terminal 22 (cf Fig 5) comprising a display 22d (which can also be used as a keypad (cf col 5, lines 34-50)), a bar code reader 22c, a microprocessor, a battery 22h and a RF modem 22a for communicating with a base unit 31-33. In operation (cf col 10, line 35 to col 12, line 46) a nurse signs onto the system and patient data associated with the patients assigned to the nurse are loaded into the hand-held pocket terminal 22 (cf col 10, lines 39-45). The data loaded into the pocket terminal 22 is available at all times and is automatically updated with each base station 32 or central data base interaction (cf col 11, lines 5-12). For example (cf col 11, lines 40-47) when the patient's bar code is read, the base station 32 automatically sends a request to the central fileserver 24 (remote processing centre) to update the nurse's portable data base with any new information since the last update. In the system in D4, the selectable items are the patients which are user select-

able by means of the scanner 22c for reading the patients' bar codes. The information relating to these selected items or patients is displayed on the pocket terminal display 22d (cf col 12, lines 1-11).

4.1 In an alternative embodiment in D4 (cf col 13, lines 28-37) the pocket terminal can be used with a modem to up/down-load the patient's data to/from the hospital system (remote processing system) over the telephone in the patient's home. In view of the operation of the pocket terminal in paragraph 2 above, the process of up/down-loading patients' data would also involve updating the information relating to the patients.

Re: Claim 1

5. D1 and D7 do not disclose or suggest down-loading information from a remote processing centre for updating information previously stored in the rewritable storage for selectable items, where the selectable items are user selectable by means of the reading sensor 14.

5.1 Although D4 does down-load information for updating the patient's data stored in the hand-held unit, the updating process in D4 is initiated by scanning the patient's data or bar code. It is then the base station 32 which sends a request to the central file server 24 (remote processing centre) to update the portable hand-held unit with any new information relating to that patient (cf col 11, lines 40-47). In other words, in response to the selection of an item (patient) by means of sensing the data corresponding thereto (patient's bar code), the selected item is updated. In claim 1, the sensing of data merely causes the selection of an item within the hand-held unit (cf claim 1: page 29, line 9). The input of a command is necessary to initiate updating of the information previously stored for selectable items (cf

claim 1: page 29, lines 16-18). None of the other prior art documents suggests modifying the system in D4 to additionally require the input of a command for initiating the updating of the selectable items.

5.2 Consequently, the subject-matter of claim 1 (and its dependent claims) meets the requirements of Articles 33(2) and 33(3) PCT.

Re: Claim 3

6. None of the prior art documents suggests having a telecommunications line interface integral to the hand-held unit which directly connects the unit to the telecommunications network.

6.1 Consequently, the subject-matter of claim 3 (and its dependent claims) meets the requirements of Articles 33(2) and 33(3) PCT.

VII. Certain defects in the international application

The following defects in the form or contents of the international application have been noted:

1. The documents D1,D4,D7 have not been identified in the description nor has the relevant background art disclosed therein been discussed. The requirements of Rule 5.1(a)(ii) PCT are, thus, not fulfilled.
- 1.1 The description (cf statement of the invention bridging pages 2,3 and the text on pages 3-8 and possibly pages 25-28) needs to be brought into conformity with the claims. For example, the text at lines 7-12 on page 6 refers to a feature present in claim 1 which is not a "preferable" feature. In addition, it should be noted that although claim 1 covers all of the embodiments disclosed in the application, claim 3 covers only the embodiments shown in Figures 9-12.
- 1.2 Reference signs in parentheses should have been inserted in the claims to increase their intelligibility, Rule 6.2(b) PCT.

PATENT COOPERATION TREATY

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INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference PCT 199 1 IRH	FOR FURTHER ACTION	see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.
International application No. PCT/GB94/02101	International filing date (<i>day/month/year</i>) 27/09/94	(Earliest) Priority Date (<i>day/month/year</i>) 13/10/93
Applicant DATAQUILL LIMITED et al.		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 3 sheets.
 It is also accompanied by a copy of each prior art document cited in this report.

1. Certain claims were found unsearchable (see Box I).
2. Unity of invention is lacking (see Box II).
3. The international application contains disclosure of a nucleotide and/or amino acid sequence listing and the international search was carried out on the basis of the sequence listing
 - filed with the international application.
 - furnished by the applicant separately from the international application,
 - but not accompanied by a statement to the effect that it did not include matter going beyond the disclosure in the international application as filed.
 - Transcribed by this Authority
4. With regard to the title, the text is approved as submitted by the applicant
 the text has been established by this Authority to read as follows:
5. With regard to the abstract,
 - the text is approved as submitted by the applicant
 - the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.
6. The figure of the drawings to be published with the abstract is:

Figure No. 1

 - as suggested by the applicant
 - because the applicant failed to suggest a figure.
 - because this figure better characterizes the invention.

None of the figures.

INTERNATIONAL SEARCH REPORT

International Application No

PCT/GB 94/02101

A. CLASSIFICATION OF SUBJECT MATTER
 IPC 6 G06K7/10 G06K17/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 6 G06K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO,A,91 00574 (PARENTI, RAOUL) 10 January 1991	1,2,14, 15,19
Y	see claims 1-7; figures 1,2	3,4, 11-13, 17,18, 21-28
Y	---	3,4
Y	WO,A,89 04016 (ZENGRANGE LIMITED) 5 May 1989 see page 11, paragraph 3 - page 12, paragraph 1; figures 2,3 ---	11,12,26
Y	GB,A,2 202 664 (GARY DOUGLAS ROBB) 28 September 1988 cited in the application see the whole document ---	---
		-/-

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

* Special categories of cited documents :

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

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Date of the actual completion of the international search 9 January 1995	Date of mailing of the international search report 20.01.95
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Name and mailing address of the ISA
 European Patent Office, P.B. 5818 Patentlaan 2
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 Fax: (+ 31-70) 340-3016

Authorized officer

Chiarizia, S

PCT

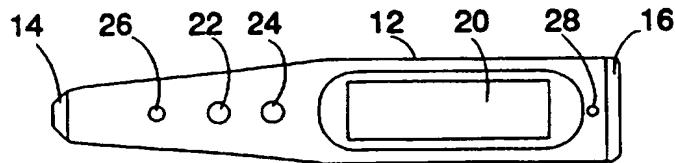
WORLD INTELLECTUAL PROPERTY ORGANIZATION
International Bureau



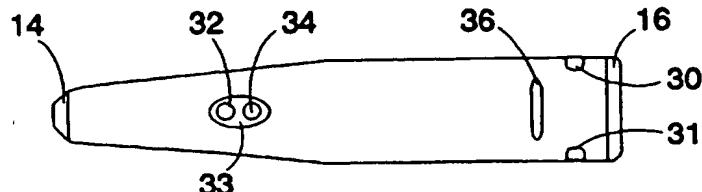
INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁶ :	A1	(11) International Publication Number: WO 95/10818
G06K 7/10, 17/00		(43) International Publication Date: 20 April 1995 (20.04.95)
(21) International Application Number: PCT/GB94/02101		(81) Designated States: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MN, MW, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SI, SK, TJ, TT, UA, US, UZ, VN, European patent (AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG), ARIPO patent (KE, MW, SD, SZ).
(22) International Filing Date: 27 September 1994 (27.09.94)		
(30) Priority Data: 9321133.2 13 October 1993 (13.10.93) GB		
(71) Applicant (for all designated States except US): DATAQUILL LIMITED [-]; P.O. Box 3151, Skelton Buildings, Road Town, Tortola (VG).		Published With international search report.
(72) Inventors; and		
(75) Inventors/Applicants (for US only): CALLAGHAN, Francis, John [GB-]; Eulah, Mont Couchon, St. Helier, Jersey (GB). DORAN, Paul, Marshall [GB-]; Haut-Clair, Bellozane Road, St. Helier, Jersey (GB). ROBB, Gary, Douglas [CA-]; 20 Close Nicole, Mont Les Vaux, St. Brelade, Jersey (GB).		
(74) Agent: HARRIS, Ian, Richard; D Young & Co., 21 New Fetter Lane, London EC4A 1DA (GB).		

(54) Title: DATA ENTRY SYSTEMS



10



10

(57) Abstract

A data entry system includes a hand held data entry unit having a reading sensor for sensing commands and/or data, rewritable storage for storing information relating to selectable items, a controller (a microprocessor or other processing circuitry) and a display screen for displaying a user readable representation of the commands and/or stored information for a selected item, and a telecommunication interface for the telephonic transmission of information relating to a selected item or items the storage to a remote processing centre and for the telephonic transmission of information relating to selectable items from the remote processing centre to the storage. Preferably a telecommunications interface is provided in the hand held unit for cellular or other wireless telephony system. The hand held unit can be configured to combine the data entry functions with those of audio telephony.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/GB 94/02101

Patent document cited in search report	Publication date	Patent family member(s)		Publication date
WO-A-9100574	10-01-91	FR-A-	2648932	28-12-90
		AT-T-	113130	15-11-94
		AU-A-	5933090	17-01-91
		CA-A-	2035462	24-12-90
		DE-D-	69013470	24-11-94
		EP-A-	0431138	12-06-91
		US-A-	5189287	23-02-93
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WO-A-8904016	05-05-89	AU-A-	2800089	23-05-89
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GB-A-2202664	28-09-88	NONE		
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US-A-4916441	10-04-90	NONE		
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US-A-5023438	11-06-91	JP-A-	2144680	04-06-90
		JP-A-	2144681	04-06-90
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EP-A-0094571	23-11-83	US-A-	4471218	11-09-84
		DE-A-	3376284	19-05-88
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WO-A-8707106	19-11-87	AU-A-	6547686	01-12-87
		CA-A-	1268253	24-04-90
		US-A-	4850009	18-07-89
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INTERNATIONAL SEARCH REPORT

International Application No
PCT/GB 94/02101

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US,A,4 916 441 (GOMBRICH) 10 April 1990 see column 5, line 34 - line 50; figure 5 ---	13 1
Y	US,A,5 023 438 (WAKATSUKI ET AL.) 11 June 1991 see abstract; figure 7 ---	17, 18
Y	EP,A,0 094 571 (MSI DATA CORPORATION) 23 November 1983 cited in the application see page 12, line 8 - line 11; figures 1-3 ---	21-25, 27, 28
X	WO,A,87 07106 (CLINICOM INCORPORATED) 19 November 1987 see page 11, line 24 - page 13, line 19; figures 4,7 -----	1, 3-5, 10, 16

INTERNATIONAL SEARCH REPORT

Information on patent family members

Application No
PCT/GB 94/02101

Patent document cited in search report	Publication date	Patent family member(s)		Publication date
WO-A-9100574	10-01-91	FR-A-	2648932	28-12-90
		AT-T-	113130	15-11-94
		AU-A-	5933090	17-01-91
		CA-A-	2035462	24-12-90
		DE-D-	69013470	24-11-94
		EP-A-	0431138	12-06-91
		US-A-	5189287	23-02-93
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WO-A-8904016	05-05-89	AU-A-	2800089	23-05-89
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GB-A-2202664	28-09-88	NONE		
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US-A-4916441	10-04-90	NONE		
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US-A-5023438	11-06-91	JP-A-	2144680	04-06-90
		JP-A-	2144681	04-06-90
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EP-A-0094571	23-11-83	US-A-	4471218	11-09-84
		DE-A-	3376284	19-05-88
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WO-A-8707106	19-11-87	AU-A-	6547686	01-12-87
		CA-A-	1268253	24-04-90
		US-A-	4850009	18-07-89
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III. DOCUMENTS CONSIDERED TO BE RELEVANT (CONTINUED FROM THE SECOND SHEET)		
Category*	Citation of Document, with indication, where appropriate, of the relevant passages	Relevant to Claim No
Y	US, A, 4588881 (W PEJAS ET AL) 13 May 1986, see the whole document GOK 7/028 GOK 7/1028	1-36
Y	US, A, 4345147 (R L AARON AND E F MURPHY) 17 August 1982, see the whole document GOK 7/1028 GOK 7/028	1-36
Y	US, A, 4387297 (J SWARTZ ET AL) 7 June 1983, see the whole document	1-36
Y	US, A, 4423319 (H JACOBSEN) 27 December 1983, see the whole document	1-36
A	US, A, 4465926 (S APITZ AND R NONNENMANN) 14 August 1984, see the whole document	1-36
A	US, A, 4101072 (D J WEAVER ET AL) 18 July 1978, see the whole document	1-36
A	US, A, 4373133 (N CLYNE ET AL) 8 February 1983, see the whole document	1-36
A	US, A, 4193540 (R DOUGADOS ET AL) 18 March 1980, see the whole document	1-36
A	WO, AI, 85/00680 (IMPULSE COMPUTER SYSTEMS INC) 14 February 1985, see abstract	1-36
Y	IBM TECHNICAL DISCLOSURE BULLETIN, Vol. 19, No. 5, October 1976 (NEW YORK, USA) P C FUROIS, L F GIACCOME: "PORTABLE INVENTORY SYSTEM AND METHOD", see page 1828	1-36

ANNEX TO THE INTERNATIONAL SEARCH REPORT
ON INTERNATIONAL PATENT APPLICATION NO. PCT/GB 88/00907

SA 24936

This annex lists the patent family members relating to the patent documents cited in the above-mentioned international search report.
The members are as contained in the European Patent Office EPO file on 12/01/89.
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

Patent document cited in search report	Publication date	Patent family member(s)		Publication date
EP-A- 0151533	17/08/85	GB-A-B- AU-D-	2153334 38139/85	21/08/85 08/08/85
US-A- 4418277	29/11/83	EP-A-B- DE-A-C- JP-A-	0052306 3043557 57113179	26/05/82 03/06/82 14/07/82
US-A- 4588881	13/05/86	DE-A- EP-A-	3226014 0099072	07/07/83 25/01/84
US-A- 4345147	17/08/82	GB-A-B- DE-A- JP-A- CA-A-	2087655 3140527 57118948 1174744	26/05/82 16/06/82 24/07/82 18/09/84
US-A- 4387297	07/07/83	GB-A-B- FR-A-B- JP-A- DE-A-C- CA-A- GB-A-B- CA-A- US-A- DE-A-C- US-A-	2070832 2477302 56140467 3107922 1154872 2134679 1173103 4496831 3153253 4593186	09/09/81 04/09/81 02/11/81 18/03/82 04/10/83 15/08/84 21/08/84 29/01/85 25/04/85 03/06/86
US-A- 4423319	27/12/83	GB-A-B- SE-A-C- SE-A-	2068536 419908 8000402	12/08/81 31/08/81 19/07/81
US-A- 4465926	14/08/84	DE-A-C- JP-A-	3109286 57209571	23/09/82 22/12/82
US-A- 4101072	18/07/78	DE-A-C- JP-A-	2747450 54031249	27/04/78 08/03/79
US-A- 4373133	08/02/83	GB-A-B-	2068132	05/08/81
US-A- 4193540	18/03/80	BE-A- NL-A- FR-A-B- DE-A-C- GB-A- CH-A-	868260 7801406 2395080 225936 1591561 625431	16/10/78 27/12/78 19/01/79 25/01/79 01/07/81 30/09/81 ... / ...

ANNEX TO THE INTERNATIONAL SEARCH REPORT
ON INTERNATIONAL PATENT APPLICATION NO.

PCT/GB 88/00907

SA 24936

This annex lists the patent family members relating to the patent documents cited in the above-mentioned international search report.
The members are as contained in the European Patent Office EPO file on 12/01/89
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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO-A- 85/00680	14/02/85	EP 0151173 US 4563739 CA 1230681	14/08/85 07/01/86 22/12/87